

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the above-identified application:

1-17 (Canceled)

18. (New) A method comprising:
executing one or more tasks within each of a plurality of nodes of a network to generate:
first data identifying at least one of,
a node of said plurality of nodes on which data associated with said each of said plurality of nodes is added to said network, and
a node of said plurality of nodes on which data associated with said each of said plurality of nodes is dropped from said network, and
second data indicating a format of data on said network.
19. (New) The method of claim 18, further comprising:
identifying said plurality of nodes of said network.
20. (New) The method of claim 19, wherein said plurality of nodes are interconnected by one or more links and said executing one or more tasks within each of said plurality of nodes of said network to generate said second data comprises:
executing one or more tasks within each of a plurality of nodes of a network to generate second data indicating a format of data on said one or more links.
21. (New) The method of claim 19, wherein said data associated with said each of said plurality of nodes comprises at least one of, data received by said each of said plurality of nodes from said network, and data transmitted by said each of said plurality of nodes to said network.

22. (New) The method of claim 19, wherein said executing comprises:
requesting, from at least one other node of said plurality of nodes, data
indicating what data are added or dropped on said at least one other
node of said plurality of nodes.
23. (New) The method of claim 20, wherein said executing comprises:
requesting, from at least one other node of said plurality of nodes, data
indicating a format of data on a link of said one or more links attached
to said at least one other node of said plurality of nodes.
24. (New) The method of claim 23, wherein said requesting comprises:
requesting data indicating at least one of a synchronous transport signal type
and a synchronous transport module type.
25. (New) The method of claim 20, wherein said network satisfies at least one of a
first condition and a second condition, wherein,
said first condition comprises that in case of failure, traffic can be switched
between said one or more links, and when said traffic is switched, said
traffic can be squelched to prevent misconnection, and
said second condition comprises that data on each of said one or more links
are transmitted in data buckets, each of said data buckets being re-
transmitted at regular intervals of time, each of said data buckets, when
re-transmitted, being dropped on a predetermined one or more nodes
from said network.
26. (New) The method of claim 25, wherein,
said network satisfies said first condition, and
said executing one or more tasks within each of said plurality of nodes to
generate said first data comprises,
performing squelching to prevent misconnection.
27. (New) The method of claim 25, wherein,
said network satisfies said second condition, and
said executing one or more tasks within each of said plurality of nodes to
generate said first data comprises,

for each data bucket, identifying at least one of said plurality of nodes on which said each data bucket is added to the network, and/or at least one of said plurality of nodes on which said each data bucket is dropped from the network.

28. (New) The method of claim 19, further comprising:
detecting a failure on a first link of said one or more links; and
switching traffic from said first link to a second link of said one or more links in response to said detecting.
29. (New) The method of claim 28, wherein said executing one or more tasks within each of said plurality of nodes comprises executing said one or more tasks within each of said plurality of nodes before said failure occurs.
30. (New) An apparatus comprising:
means for identifying a plurality of nodes of a network, wherein said plurality of nodes are interconnected by one or more links; and
means for executing one or more tasks within each of said plurality of nodes to generate:
first data identifying at least one of,
a node of said plurality of nodes on which data associated with said each of said plurality of nodes is added to said network, and
a node of said plurality of nodes on which data associated with said each of said plurality of nodes is dropped from said network, and
second data indicating a format of data on said one or more links.
31. (New) The apparatus of claim 30, wherein said data associated with said each of said plurality of nodes comprises at least one of, data received by said each of said plurality of nodes from said network, and data transmitted by said each of said plurality of nodes to said network.
32. (New) The apparatus of claim 31, wherein said means for executing comprises:

means for requesting, from at least one other node of said plurality of nodes,
data indicating what data are added or dropped on said at least one
other node of said plurality of nodes.

33. (New) The apparatus of claim 31, wherein said means for executing
comprises:

means for requesting, from at least one other node of said plurality of nodes,
data indicating a format of data on a link of said one or more links
attached to said at least one other node of said plurality of nodes.

34. (New) The apparatus of claim 33, wherein said means for requesting
comprises:

means for requesting data indicating at least one of a synchronous transport
signal type and a synchronous transport module type.

35. (New) The apparatus of claim 31, wherein said network satisfies at least one
of a first condition and a second condition, wherein,

said first condition comprises that in case of failure, traffic can be switched
between said one or more links, and when said traffic is switched, said
traffic can be squelched to prevent misconnection, and
said second condition comprises that data on each of said one or more links
are transmitted in data buckets, each of said data buckets being re-
transmitted at regular intervals of time, each of said data buckets, when
re-transmitted, being dropped on a predetermined one or more nodes
from said network.

36. (New) The apparatus of claim 35, wherein,
said network satisfies said first condition, and
said means for executing one or more tasks within each of said plurality of
nodes to generate said first data comprises,
means for performing squelching to prevent misconnection.

37. (New) The apparatus of claim 35, wherein,
said network satisfies said second condition, and
said means for executing one or more tasks within each of said plurality of
nodes to generate said first data comprises,

for each data bucket, means for identifying at least one of said plurality of nodes on which said each data bucket is added to the network, and/or at least one of said plurality of nodes on which said each data bucket is dropped from the network.

38. (New) The apparatus of claim 31, further comprising:
 means for detecting a failure on a first link of said one or more links; and
 means for switching traffic from said first link to a second link of said one or more links in response a detection of a failure on said first link.
39. (New) The apparatus of claim 38, wherein said means for executing one or more tasks within each of said plurality of nodes comprises means for executing said one or more tasks within each of said plurality of nodes before said failure occurs.
40. (New) A network node comprising:
 an interface to couple said network node to a network, wherein said network comprises a plurality of nodes interconnected by one or more links and said plurality of nodes comprises said network node;
 a timing communications and control processor configured to:
 identify said plurality of nodes, and
 execute one or more tasks within network node to generate:
 first data identifying at least one of,
 a node of said plurality of nodes on which data
 associated with said each of said plurality of
 nodes is added to said network, and
 a node of said plurality of nodes on which data
 associated with said each of said plurality of
 nodes is dropped from said network, and
 second data indicating a format of data on said one or more
 links.
41. (New) The network node of claim 40, wherein said data associated with said each of said plurality of nodes comprises at least one of, data received by said each of said plurality of nodes from said network, and data transmitted by said each of said plurality of nodes to said network.

42. (New) The network node of claim 41, wherein said timing communications and control processor configured to execute one or more tasks comprises:
a timing communications and control processor configured to:
request, from at least one other node of said plurality of nodes, data indicating what data are added or dropped on said at least one other node of said plurality of nodes.
43. (New) The network node of claim 41, wherein said timing communications and control processor configured to execute one or more tasks comprises:
a timing communications and control processor configured to:
request, from at least one other node of said plurality of nodes, data indicating a format of data on a link of said one or more links attached to said at least one other node of said plurality of nodes.
44. (New) A machine-readable medium having a plurality of instructions executable by a machine embodied therein, wherein said plurality of instructions when executed cause said machine to perform a method comprising:
identifying a plurality of nodes of a network, wherein said plurality of nodes are interconnected by one or more links; and
executing one or more tasks within each of said plurality of nodes to generate:
first data identifying at least one of,
a node of said plurality of nodes on which data associated with said each of said plurality of nodes is added to said network, and
a node of said plurality of nodes on which data associated with said each of said plurality of nodes is dropped from said network, and
second data indicating a format of data on said one or more links.
45. (New) The machine-readable medium of claim 44, wherein said data associated with said each of said plurality of nodes comprises at least one of, data received by said each of said plurality of nodes from said network, and data transmitted by said each of said plurality of nodes to said network.

46. (New) The machine-readable medium of claim 45, wherein said executing comprises:

requesting, from at least one other node of said plurality of nodes, data
indicating what data are added or dropped on said at least one other
node of said plurality of nodes.

47. (New) The machine-readable medium of claim 45, wherein said executing comprises:

requesting, from at least one other node of said plurality of nodes, data
indicating a format of data on a link of said one or more links attached
to said at least one other node of said plurality of nodes.